

REMARKS

By this amendment, claims 6 and 7 have been canceled. Therefore, on entering this amendment, claims 1-3 all the claims pending in the application.

Claim 1 is rejected under 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulig in view of Nakai et al. and further in view of Krolak (U.S. Patent No. 6,592,679).

The Applicants traverse the rejections and request reconsideration.

Claim rejections under 35 U.S.C. § 103

Rejection of claims 1, 2, 3, 6 and 7 under 35 U.S.C. 103(a) based on Kulig in view of Nakai et al. and further in view of Krolak

Claim 1 has been amended to include limitations from claim 6. Therefore, the rejection of claim 1 based on the combined teachings of Kulig and Nakai is moot. Further claim 6 and 7 have been deleted and the corresponding limitations included in claims 1 and 3. The discussion below relates to the differences between amended claims 1-3 and the combined teachings of Kulig, Nakai and Krolak.

None of the cited references suggest “the second vacuum seal that partitions the inner space between the first and second vacuum seal for being vacuumed and the inner space of the vacuum chamber” as recited in the amended claims 1 and 3.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. MPEP 2143 *citing In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The patent office has not satisfied the burden of establishing *prima facie* obviousness at least because it has not satisfied the “all limitations” prong of the three prong test for obviousness. In Krolak, the O-rings 182 would correspond to the first and second vacuum seals of claims 1 and 3. In Krolak, the annular cavity 170 is vacuumed so that negative pressure is transmitted to the evacuation chamber 180 side via the central opening 174 and the filter 152. The pressures in the annular cavity 170, the central opening 174 and the evacuation chamber 180 are the same by Pascal’s principle.

The patent office appears to consider the annular cavity 170 to be equivalent to “the inner space between the first and second vacuum seal” of claims 1 and 3. Likewise, it appears to consider the central opening 174 or the evacuation chamber 180 of Krolak to be equivalent to the “inner space of the vacuum chamber” of claims 1 and 3. Such an analysis is believed to be incorrect. This is because, the O-rings 182 of Krolak does not partition the annular cavity 170 and the central opening 174 or the evacuation chamber 180. Importantly, the pressure in the

annular cavity 170 and the pressure in the central opening 174 or the evacuation chamber 180 are the same. The O-ring 182 of Krolak merely partitions the annular cavity 170 and atmospheric air. Therefore, Krolak does not disclose (or suggest) “the second vacuum seal that partitions the inner space between the first and second vacuum seal for being vacuumed and the inner space of the vacuum chamber” of the amended claims 1 and 3.

The patent office appears to be considering seals 60 and 62 of Kulig to correspond to the first and second vacuum seals of claims 1 and 3. However, both the seals 60 and 62 have the same function of partitioning the space of the container 74 side and the space of the motor 30 side. (The pressure in the space of the motor 30 side is atmospheric pressure). Therefore, the seal 62 (or the seal 60) does not partition the inner space between the seals 60 and 62 and the inner space of the container 74 as would be required to establish equivalence with the present invention. So, Kulig does not disclose (or suggest) “the second vacuum seal that partitions the inner space between the first and second vacuum seal for being vacuumed and the inner space of the vacuum chamber” of the amended claims 1 and 3.

In addition, Nakai discloses nothing corresponding to the second vacuum seal.

The patent office has not established *prima facie* obviousness at least because it has not satisfied the “all limitations” prong of the three prong test for obviousness since it has not shown where the combined teachings of Krolak, Kulig and Nakai suggest the second vacuum seal that partitions the inner space between the first and second vacuum seal for being vacuumed and the inner space of the vacuum chamber.

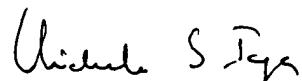
Since the "all limitations" prong is not satisfied, the other two prongs of the three prong test for obviousness must fail. Specifically, there is no motivation to combine the teachings of Krolak, Kulig and Nakai with a reasonable expectation of success.

The Applicants further submit that the second vacuum seal in Fig. 3 of Harris (U.S. Patent No. 6,483,336) cannot also be considered to be equivalent to the vacuum seal in the present invention. This is because, the seals 98 and 96 partition the inner space between the seals 98 and 96 and atmospheric air.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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